REMARKS

Claims 1-34 are pending in the present application. Claims 1, 15, 22 and 32 are the independent claims. In the Official Action, dated October 21, 2004, claims 1-13 and 15-21 were rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Patent No. 6,073,128 (Pongracz et al.) in view of U.S. Patent No. 6,647,399 (Zaremba) and further in view of U.S. Patent No. 6,145,088 (Stevens). Claim 14 was rejected under 35 U.S.C. § 103(a) over Pongracz et al. in view of Zaremba, further in view of Stevens, and additionally further in view of U.S. Patent No. 6,038,379 (Fletcher et al.). Claims 22-30, 32 and 34 were rejected under 35 U.S.C. § 103(a) over Zaremba in view of Stevens. Lastly, claims 31 and 33 were rejected under 35 U.S.C. § 103(a) over Zaremba in view of Stevens, and further in view of Pongracz et al.

The outstanding rejections to the claims are respectfully traversed.

Summary of the Invention

The present invention provides a way to restore a pre-defined collection of files to a particular time by restoring the last full backup embodying the backup target, the last computed cumulative backup embodying the backup target and possibly the incremental backups after the last computed cumulative backup, if there are any that relate to change in the backup target.

For instance, in an exemplary embodiment generally corresponding to claim 1, the invention provides a method for generating backup files in a computer system including generating a full backup file corresponding to a first time ***for a set of objects*** in the computer system and generating one or more incremental files ***for the set of objects*** afterwards, wherein

the one or more incremental files each are associated with the collective set of objects. The method further includes identifying a target object within the set of objects for the generation of cumulative backup files and then generating off-line one or more cumulative backup files corresponding to a second time (after the first time) for the target object.

Pongracz et al.

Pongracz et al. discloses a method and apparatus that identifies backup files that will restore a file in a transactional system. A reset stamp and filename are used to identify all backup files of the file having the filename since the file was last restored. A smaller number of files necessary to restore the file are selected from these backup files by sorting the list of files and selecting certain files in sort order. If necessary, earlier reset stamps are identified and more files are identified and selected, until a file is selected that contains a full backup or datafile copy of the file. For the backup files selected, information such as the location of the file is stored in the order in which the backup files are selected. The information, such as the location of each file selected, is provided in an order that is the reverse of the order in which the files were selected so that the oldest file is listed first. The files may be restored in the order provided.

Independent Claims 1 and 15

As stated above, claims 1-13 and 15-21 were rejected under 35 U.S.C. § 103(a) over Pongracz et al. in view of Zaremba and further in view of Stevens. In apparent appreciation of

Applicant's remarks concerning Pongracz et al.'s lack of disclosure pertaining to backup files for "a set of objects," the Official Action adds the Zaremba reference in apparent hope to cure the deficiency of root reference Pongracz et al. with respect to Applicant's claims.

However, as summarized in McGinley v. Franklin Sports, Inc., 262 F.3d 1339 (Fed. Cir. 2001),

> references that **teach away** cannot serve to create a prima facie case of obviousness. In re Gurley, 27 F.3d 551, 553, 31 U.S.P.Q.2D (BNA) 1130, 1132 (Fed. Cir. 1994). If references taken in combination would produce a "seemingly inoperative device," we have held that such references **teach away** from the combination and thus cannot serve as predicates for a prima facie case of obviousness. In re Sponnoble, 56 C.C.P.A. 823, 405 F.2d 578, 587, 160 U.S.P.Q. (BNA) 237, 244 (CCPA 1969) (references **teach away** from combination if combination produces seemingly inoperative device); see also In re Gordon, 733 F.2d 900, 902, 221 U.S.P.Q. (BNA) 1125, 1127 (Fed. Cir. 1984) (inoperable modification **teaches away**).

Applicant respectfully submits that Pongracz et al. and Zaremba in combination would produce an inoperative device because Pongracz et al.'s systems and methods for identifying efficient sets of backup files to backup a file, are predicated on a system that builds file list information on a per-file (based on the filename) basis.

In this regard, Pongracz et al. discloses a method and apparatus that identifies backup files that will restore a file in a transactional system. Incident to the methods for identifying backup files is a method of creating backup files and information for use specifically by the methods for identifying backup files.

As acknowledged in the present Official Action through the introduction the Zaremba reference, the methods disclosed by Pongracz et al. for creating such backup files and

information therefore do not include: *generating a full backup file for a set of objects*, then *generating incremental file(s) for the set of objects* (claim 1) or *generating a full backup file corresponding to a first time for a set of objects* in the computer system, *generating incremental file(s) for the set of objects after the first time* (claim 15).

This is because Pongracz et al. nowhere discloses or suggests generating a full backup file for a set of objects plainly because Pongracz et al.'s systems hinges on building backup file information file by file (by filename). For instance, Pongracz et al. states "Additionally, **file list builder module 220 builds** in file list storage 212 coupled to file list builder module 220 all of the backup file records stored in the backup file ID storage 210 **corresponding to the file name** and a reset stamp received." Col. 5, lines 7-11. While Pongracz et al. discloses to assign "type value of '2' to file records corresponding to full backups," it is a full backup corresponding to the file name (a single file). Accordingly, it is believed by Applicant and acknowledged in the Official Action that the disclosure of Pongracz et al. does not teach or suggest "generating a full backup file for a set of objects" and "generating incremental file(s) for the set of objects," as recited in claims 1 and 15.

In apparent appreciation of this point, the Official Action asserts Zaremba in combination with Pongracz et al. and Stevens to cure this fundamental deficiency of Pongracz et al. by stating that Zaremba allegedly discloses a method for data backup and recovery including backup for a set of objects, nebulously referring to a motivation to combine by saying including Zaremba with Pongracz et al. would "provide a backup system's efficiency."

Applicant respectfully submits, however, that Zaremba and Pongracz et al. together would render the disclosure of Pongracz et al. *inoperable*. As described above, Pongracz et al.'s method of identifying an efficient set of backup files is built on, and inextricably linked to, the information that is created for use with such identifying processes, which is predicated on backup files created on a per filename basis. Accordingly – even if it were true that Zaremba disclosed a system relating to a "set of objects" – to try to shoehorn Zaremba's "set of objects" into the systems disclosed in Pongracz et al. would "break" the system of the Pongracz et al., i.e., it would no longer work based on its architecture for creating backup information (based on a single filename). Thus, even assuming that Zaremba includes the alleged disclosure (a contention rebutted below), Pongracz et al.'s systems for identifying backup files would not work if so modified since they are predicated on information collected based on a single filename, not a collection of objects.

Stevens was cited for reasons relating to off-line operation, and Fletcher et al. was cited for reasons relating to storage block mappings and formatting, but neither Stevens nor Fletcher et al. cure the above-identified deficiency of the Zaremba/Pongracz et al. combination with respect to Applicant's claimed invention. Specifically, none of Pongracz et al., Stevens and Fletcher et al., taken alone or in combination, teach or suggest generating backup files in a computer system and includes generating a full backup file for a set of objects, then generating incremental file(s) for the set of objects wherein each of the incremental file(s) is associated with the set of objects, identifying a target object within the set of objects for the generation of cumulative backup

file(s) and generating those cumulative backup file(s) for the target object off-line, as recited in claim 1, and similarly in claim 15.

Claims 2-14 and 16-21 depend from claims 1 and 15, either directly or indirectly, and are believed allowable for the same reasons. Withdrawal of the rejection to claims 1-21 under 35 U.S.C. § 103(a) is respectfully requested.

Independent Claims 22 and 32

As stated above, claims 22-30, 32 and 34 were rejected under 35 U.S.C. § 103(a) over Zaremba in view of Stevens.

Applicant respectfully submits that the Zaremba reference suffers at least the same deficiency with respect to Applicant's claims as Pongracz et al. In this regard, Applicant respectfully disputes that Zaremba et al. discloses that "the incremental and cumulative backup information ***is associated with the collection*** of said plurality of target objects," as recited in claims 22 and 32. In contrast, Zaremba, like Pongracz et al., discloses to generate backup information for a single file, or single object.

For instance, the disclosure found at Col. 4, lines 13-67 of Zaremba pertains to the full and incremental backups for ***a single database object***. For instance, as described at Col. 4, lines 15-19, "a full backup set of a database object is provided ***the name of the database object***, e.g., "DBNAME", with the extension "full," providing a name of "DBNAME.FULL." Because the same name of the full backup of an object is used for all versions, a subsequent full backup of the

database object becomes the active version." In this case, the database object is the single file, and there is no teaching or disclosure that the system of Zaremba associates full, incremental and cumulative backup information with ***a plurality of target objects as a collection***, as required by claims 22 and 32. In this respect, the failings of Zaremba with respect to Applicant's invention are believed to at least repeat the failings of Pongracz et al. Stevens was cited for reasons relating to off-line processing, and also does not cure the above-identified deficiency of root reference Zaremba.

Accordingly, none of the art of record is believed to teach or suggest "a plurality of storage components for the storage of backup information for a plurality of target objects in the form of full, incremental and cumulative backup information, ***wherein the incremental and cumulative backup information is associated with the collection of said plurality of target objects***," as recited in claims 22 and 32.

Claims 23-31 and 33-34 depend from claims 22 and 32, either directly or indirectly, and are believed allowable for the same reasons. Withdrawal of the rejection to claims 22-34 under 35 U.S.C. § 103(a) is respectfully requested.

CONCLUSION

Applicant believes that the present Amendment is responsive to each of the points raised by the Examiner in the Office Action, and submits that Claims 1-34 of the application are in condition for allowance. Favorable consideration and passage to issue of the application at the Examiner's earliest convenience is earnestly solicited.

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